FIG. 1

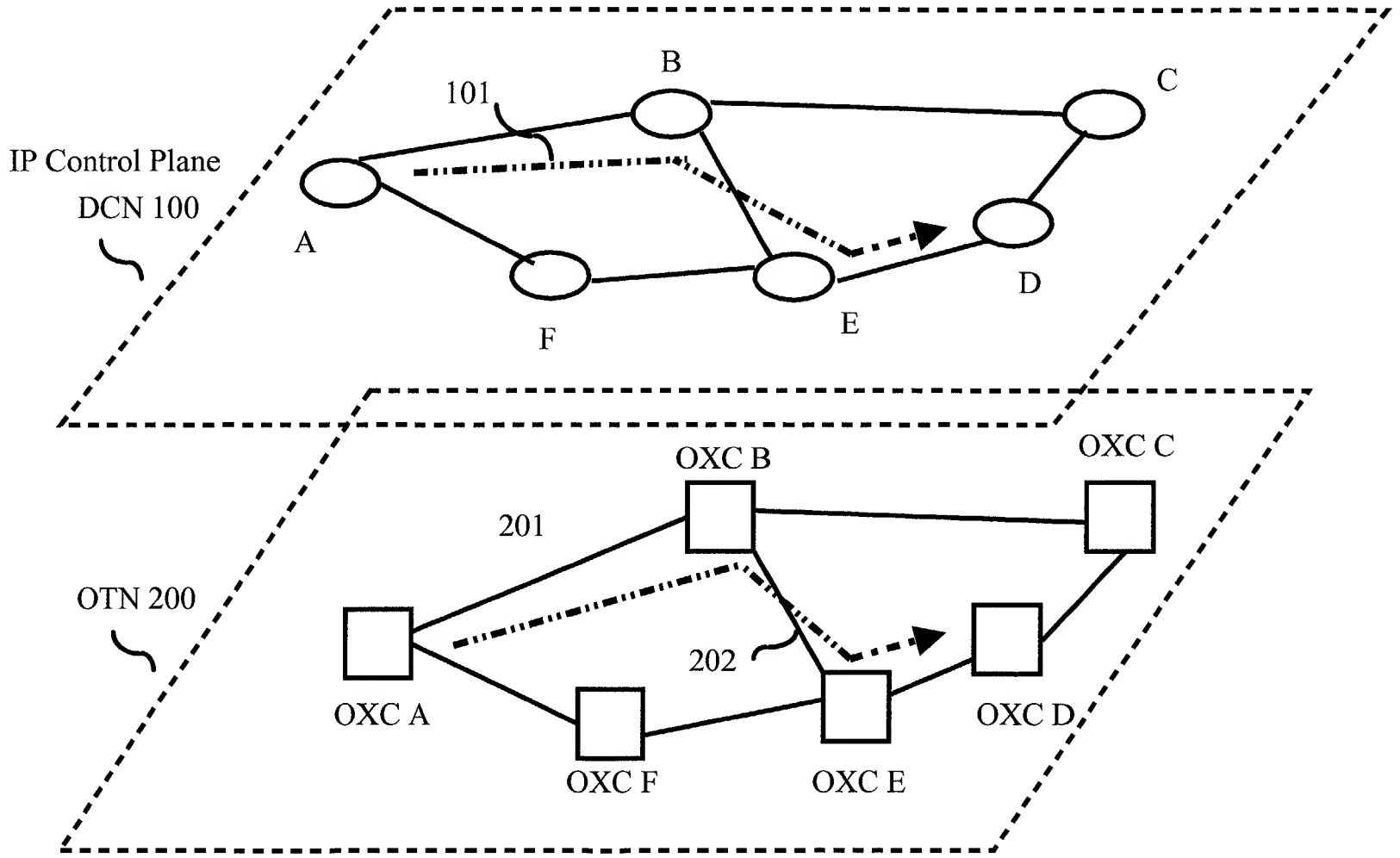

IP Control Plane
DCN 100
101
A
B
C
D
E
F
OTN 200
201
202
OXC A
OXC B
OXC C
OXC D
OXC E
OXC F

FIG. 2

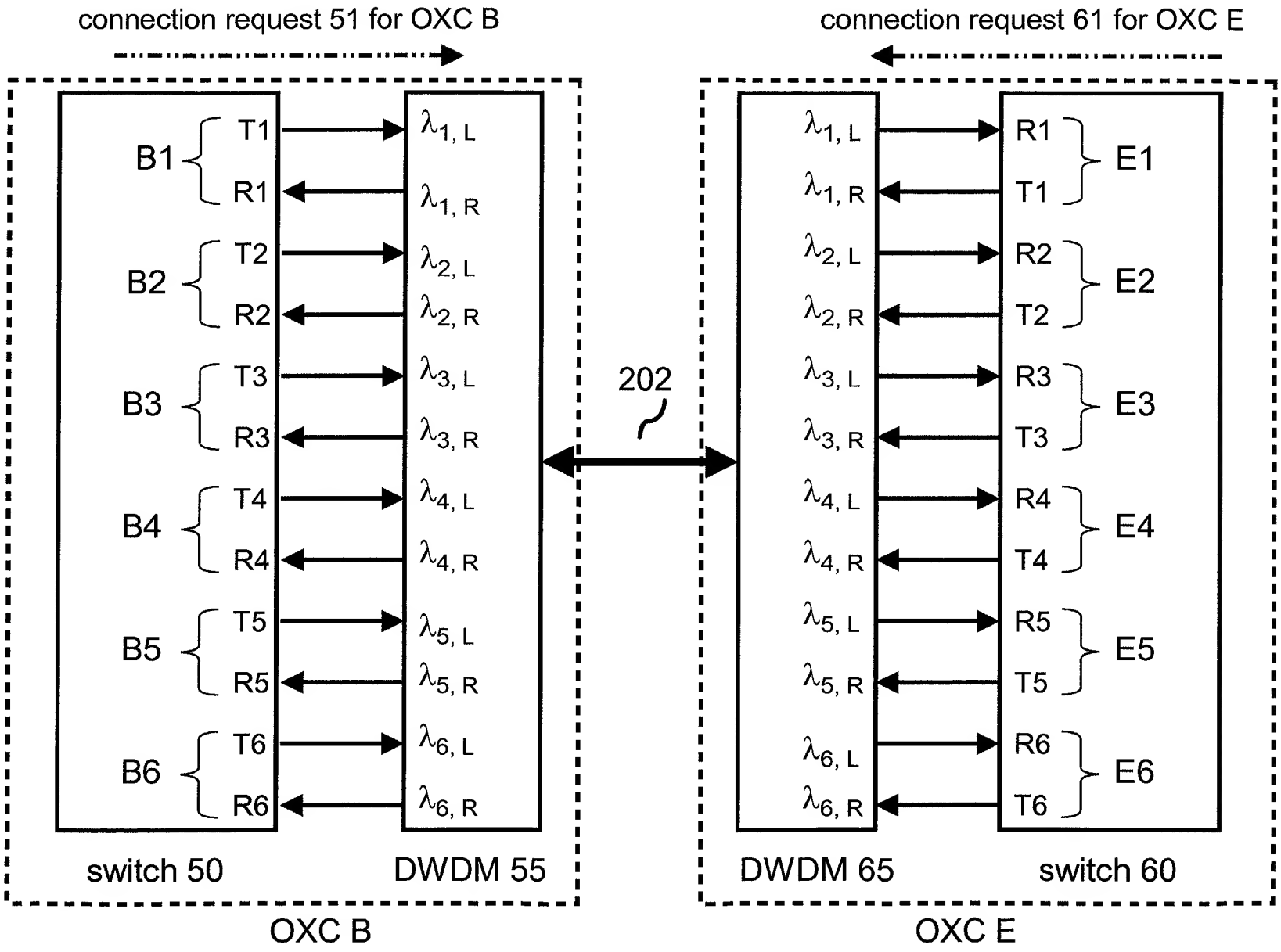

connection request 51 for OXC B
connection request 61 for OXC E
B1
B2
B3
B4
B5
B6
T1
R1
T2
R2
T3
R3
T4
R4
T5
R5
T6
R6
$\lambda_{1,L}$
$\lambda_{1,R}$
$\lambda_{2,L}$
$\lambda_{2,R}$
$\lambda_{3,L}$
$\lambda_{3,R}$
$\lambda_{4,L}$
$\lambda_{4,R}$
$\lambda_{5,L}$
$\lambda_{5,R}$
$\lambda_{6,L}$
$\lambda_{6,R}$
202
E1
E2
E3
E4
E5
E6
switch 50
DWDM 55
DWDM 65
switch 60
OXC B
OXC E

FIG. 3

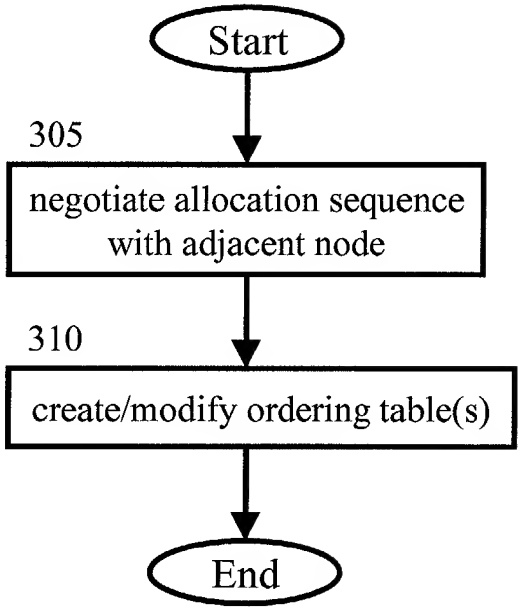

Start
305
negotiate allocation sequence with adjacent node
310
create/modify ordering table(s)
End

FIG. 4

Table B-one,
First Level Ordering Table,
OXC B

Level 1 ids	Ports
1	B1
2	B2
3	B3
4	B4
5	B5
6	B6

top-down

Table E-one,
First Level Ordering Table,
OXC E

Level 1 ids	Ports
1	E6
2	E5
3	E4
4	E3
5	E2
6	E1

Bottom-up

Table B-two,
Second Level Ordering Table,
OXC B

Level 2 ids	Level 1 ids	Transmitters
1	3	T3
2	4	T4
3	2	T2
4	5	T5
5	1	T1
6	6	T6

Table E-two,
Second Level Ordering Table,
OXC E

Level 2 ids	Level 1 ids	Transmitters
1	4	T3
2	3	T4
3	5	T2
4	2	T5
5	6	T1
6	1	T6

FIG. 6

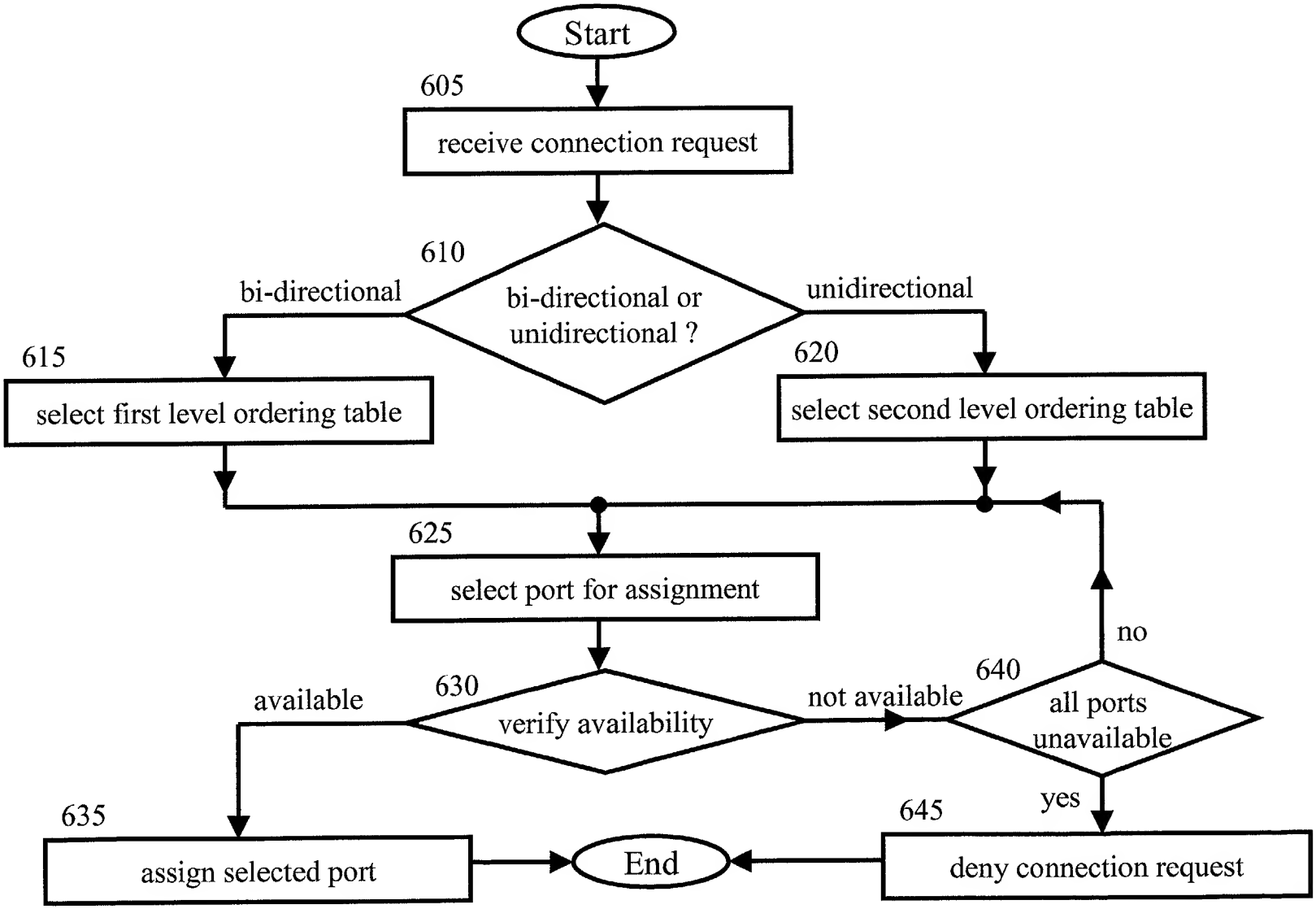
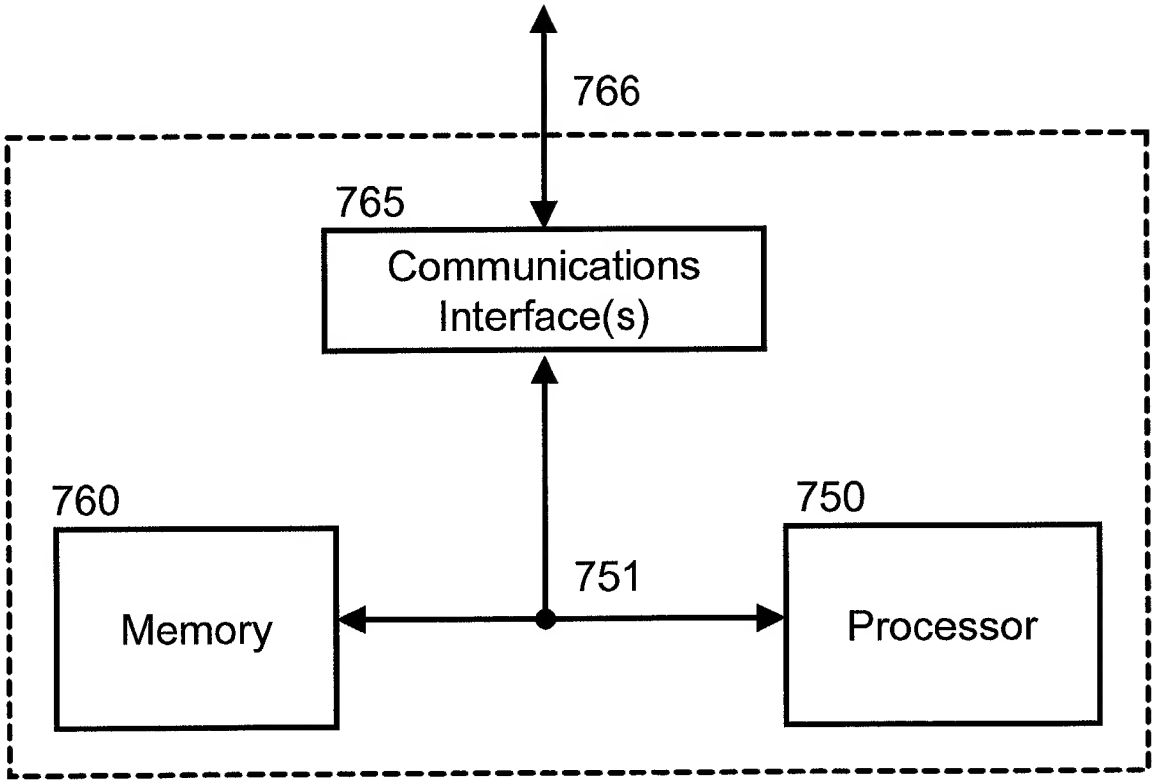

Start
605
receive connection request
610
bi-directional or unidirectional ?
bi-directional
unidirectional
615
select first level ordering table
620
select second level ordering table
625
select port for assignment
630
verify availability
available
not available
640
all ports unavailable
no
yes
635
assign selected port
End
645
deny connection request

FIG. 7


766
765
Communications Interface(s)
760
Memory
751
750
Processor
705